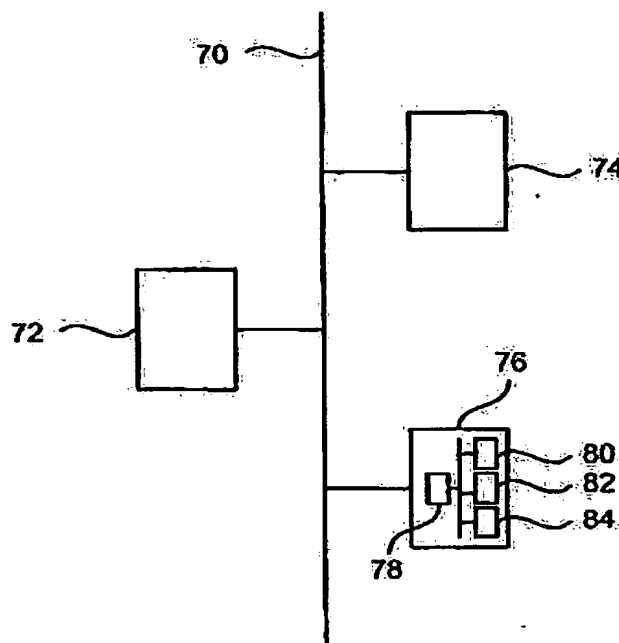


REMARKS

Pursuant to the above noted office action, claims 1 through 15 have been rejected under 35 U.S.C. 102(e) in view of Alkhatib et al. (U.S. Patent No. 6,532,217) ("Alkhatib"). The applicants respectfully traverse this rejection and requests reconsideration.

The applicants believe it will be helpful to first briefly describe and characterize the Alkhatib reference. Alkhatib addresses the determination of a network address for a new node upon adding that node to a network. Alkhatib explains his invention in the context of adding a device to an Ipv4-compatible subnet (70) as represented in his FIG. 2 (reproduced below for the convenience of the reader).



**FIGURE 2**

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Alkhatib explains that these devices (72, 74, 76) can comprise a computer, a storage device (such as a disk drive), or an appliance such as a videotape machine, a home security system, a home lighting system. [Column 5, lines 15 - 24.] Using the device denoted by reference numeral 76, Alkhatib teaches that the device can comprise a network interface (78) that couples a device processor (80), memory (82), and appliance functionality (84) to the subnet (70). Alkhatib suggests that this network interface (78) can be a network card (such as an Ethernet card) or a modem. [Column 5, lines 24 - 27.]

Alkhatib teaches that upon coupling such a device to such a subnet, the device can take certain steps to ascertain an address for itself. This address will necessarily include at least a portion of the subnet number. To achieve this, Alkhatib provides a process whereby the device essentially guesses as to the contents of a correct present subnet number. If that guess proves incorrect, the device then refines that guess. Upon finally determining the existing subnet number, the device can make use of that information to then establish a complete network address for itself.

Alkhatib makes no teaching or suggestion that these devices should determine or identify whether a communication link between such a device and such a subnet is active or not. Alkhatib simply presumes that such a link, when present, is active.

Alkhatib also makes no teaching or suggestion that these devices should determine whether a new address prefix is needed for a communication link. Instead, Alkhatib only teaches an approach to ascertain the specifics of the existing subnet number. Therefore, even to the extent that Alkhatib's "subnet number" may equate to a "prefix," Alkhatib makes no attempt to identify whether a new

subnet number/prefix is needed. He only seeks to enumerate with specificity the contents of an existing subnet number/prefix.

Alkhatib also appears to make no teaching or suggestion that a router should effect Alkhatib's processes on its own behalf.<sup>1</sup> Alkhatib only teaches instead that various endpoints have this capability. The applicants have already noted in their background description that Ipv6 endpoints have an ability to be self-configuring. In neither case, however, does such functionality benefit the routers in such systems.

Claim 1 requires that a router identify whether a communication link is an active communication link and to then identify whether that router needs a new address prefix for that active link. As noted above, Alkhatib makes no salient teachings with respect to "routers." Alkhatib also makes no suggestion or teaching with respect to identifying that a communication link is an "active" communication

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<sup>1</sup> The applicant does note and acknowledge that Alkhatib makes a curious suggestion that the network interface (78) of his devices (76) can itself comprise a router [column 5, line 27]. The applicant believes that this reference in fact likely constitutes an error. Alkhatib's other suggestions for a "network interface" - i.e., a network card or a modem - make sense in context. A "router," however, does not. A router is well understood to forward data packets along two or more networks and are typically located at gateways (i.e., places where two or more networks connect to one another). Routers are also well understood to use data headers and forwarding tables to determine a path by which to forward such packets. Typical possible network interfaces for a device include network cards and modems, but not, the applicant believes, routers. In Alkhatib's case, for the network interface (78) to comprise a "router" would seem to suggest that the process (80), memory (82), and functionality (83) would then each have their own network interface. Instead, the architecture suggested by Alkhatib's illustrations would more likely be interpreted by one skilled in the art as being a computer bus, a USB connection, or the like. Therefore, designating this network connection as a "router" is both inconsistent with how one skilled in the art would view these teachings and is also inconsistent with Alkhatib's other suggestions for the network interface (i.e., a network card or a modem). The applicant also notes that even if this network interface (78) were somehow to comprise a router, there is no teaching in Alkhatib that such a router would operate either to identify whether a given communication link comprised an active link or whether there existed a need to obtain a new address prefix for an identified active link.

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link. And, Alkhatib offers no thoughts with respect to identifying whether a "new" address prefix is needed. Alkhatib only teaches that non-router endpoint nodes, which seemingly presume the presence of an active communication link, are able to ultimately ascertain their corresponding pre-existing "prefix" and to use that information when creating an address for themselves. The applicants therefore respectfully submit that Alkhatib does not anticipate claim 1.

Claim 2 is dependent upon claim 1, which claim has been shown allowable above. In addition, claim 2 further specifies that the router identifies a plurality of active communication links. Alkhatib makes no teaching or suggestion that his devices couple via more than one subnet connection. The applicants therefore respectfully submit that Alkhatib does not anticipate claim 2.

Claim 3 is dependent upon claim 2, which claim has been shown allowable above. In addition, claim 3 further specifies that the router identify whether a new address prefix is needed for each of the plurality of active communication links. Alkhatib makes no teaching or suggestion that his devices couple via more than one subnet connection and further makes no teaching regarding "new" address prefixes under any circumstances. The applicants therefore respectfully submit that Alkhatib does not anticipate claim 3.

Claim 4 is dependent upon claim 1, which claim has been shown allowable above. In addition, claim 4 further specifies that the router identify whether the router needs to advertise a new address prefix. Alkhatib makes no teaching or suggestion regarding such router capability. Further, Alkhatib presents his embodiments in the context of IPv4, and IPv4 makes no provision for router advertisements one way or the other. The applicants therefore respectfully submit that Alkhatib does not anticipate claim 4.

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Claim 5 is dependent upon claim 1, which claim has been shown allowable above. In addition, claim 5 further specifies that the router makes a determination based upon whether the router has received a prefix advertisement from another router. Alkhatib makes no teaching or suggestion in this regard. Further, Alkhatib presents his embodiments in the context of IPv4, and IPv4 makes no provision for router advertisements one way or the other. The applicants therefore respectfully submit that Alkhatib does not anticipate claim 5.

Claim 6 is dependent upon claim 5, which claim has been shown allowable above. In addition, claim 6 further specifies that the router makes a determination based upon whether the router has received a prefix advertisement from another router within a particular period of time. Alkhatib makes no teaching or suggestion in this regard. Further, Alkhatib presents his embodiments in the context of IPv4, and IPv4 makes no provision for router advertisements one way or the other. The applicants therefore respectfully submit that Alkhatib does not anticipate claim 6.

Claim 7 is dependent upon claim 4, which claim has been shown allowable above. In addition, claim 7 further specifies that the router makes a determination to solicit another router to advertise their address prefix. Alkhatib makes no teaching or suggestion in this regard. Further, Alkhatib presents his embodiments in the context of IPv4, and IPv4 makes no provision for router advertisements one way or the other. The applicants therefore respectfully submit that Alkhatib does not anticipate claim 7.

Independent claim 8, somewhat akin to claim 1 discussed above, provides for having a router assess each router link to identify active communication links. This, alone, is sufficient to distinguish claim 8 from Alkhatib.

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In addition, claim 8 further provides for identifying whether the router needs to support the active communication links. Alkhatib makes no such teaching or suggestion. Instead, Alkhatib simply presumes that his devices will operate on the one network connection that he contemplates and he makes no suggestion that his devices make some independent assessment of whether to so operate.

In addition, the word "support," when used in conjunction with a router as occurs in claim 8, refers not to mere usage of a link but rather to facilitating packet-forwarding activities between networks via the router. That is, "support" in claim 8 refers to the router's support of the communications of other nodes. Alkhatib, however, describes a device that is only looking to facilitate its own communications. Hence, the applicants respectfully submit that Alkhatib's devices do not "support" a given active communication link.

There are other differences between claim 8 and the Alkhatib reference, but the reasons set forth above are more than sufficient to establish that Alkhatib does not anticipate claim 8.

Claim 9 is dependent upon claim 8, which claim has been shown allowable above. In addition, claim 9 further specifies that the router monitors the link for prefix advertisements from another router. Alkhatib makes no teaching or suggestion in this regard. Further, Alkhatib presents his embodiments in the context of IPv4, and IPv4 makes no provision for router advertisements one way or the other. The applicants therefore respectfully submit that Alkhatib does not anticipate claim 9.

Claim 10 is dependent upon claim 9, which claim has been shown allowable above. In addition, claim 10 provides further details regarding router prefix advertisements. Alkhatib makes no teaching or suggestion in this regard. Further, Alkhatib presents his embodiments in the context of IPv4, and IPv4 makes

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no provision for router advertisements one way or the other. The applicants therefore respectfully submit that Alkhatib does not anticipate claim 10.

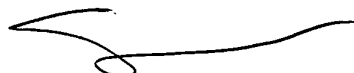
Independent Claim 11 provides a router having means to identify active communication links and means to identify when the router needs to provide a new address prefix for an active communication link. As noted above with respect to claim 1, Alkhatib makes no such teachings. The applicants therefore respectfully submit that claim 11 is not anticipated by Alkhatib.

Remaining claims 12 through 15 are dependent upon claim 11, which claim has been shown allowable above. In addition, these claims introduce additional details that, particularly when considered in context with the recitation of claim 11, comprise additional incremental patentable subject matter. For all these reasons the applicants respectfully submit that claims 12 through 15 may be passed to allowance.

There being no other objections to or rejections of the claims, the applicants respectfully submit that claims 1 through 15 may be passed to allowance.

Respectfully submitted,  
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